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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,586	11/08/2006	George Telfer	17172/034001	3960

26722 7590 09/26/2008  
OSHA LIANG/MI  
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EXAMINER
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ANDRISH, SEAN D

ART UNIT	PAPER NUMBER
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3672

NOTIFICATION DATE	DELIVERY MODE
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09/26/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/574,586	<b>Applicant(s)</b> TELFER, GEORGE	
	<b>Examiner</b> SEAN D. ANDRISH	<b>Art Unit</b> 3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 - 26 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 6, 10, 12 - 15, 19 - 21, and 25 is/are rejected.
- 7) ☒ Claim(s) 7-9, 11, 16 - 18, 22 - 24, and 26 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 April 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

**DETAILED ACTION*****Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "running tool" and the "setting sleeve" as recited in claim 12 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.
2. The drawings are objected to because additional figures are needed to better illustrate the relationship between the circumferential profile of a portion of the connector as illustrated in Figs. 2(a) and 2(b) and the cross-sectional view of the downhole connector as illustrated in Figs. 1(a) and 1(b). Only one longitudinal section (28) is illustrated in Figs. 1(a) and 1(b), and Fig. 1(a) and 1(b) do not illustrate the straight portions (78, 90) and the sloping portions (84, 96) as illustrated in Figs. 2(a) and 2(b). Face (86) should be illustrated in Figs. 1(a) and 1(b) to further clarify the relationship between face (74) and face (86) and how the faces (74, 86) relate to the downhole connector as a whole. Applicant should also clarify how the steeply-sloping upper end (66) of raised portion (64) as illustrated in Fig. 1(b) mates with raised portion (24) as illustrated in Fig. 1(a). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the

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drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

3. Claims 1, 12, and 20 are objected to because of the following informalities: It is difficult to interpret what applicant means by the phrase "on part engagement" as recited in claims 1, 12, and 20. The phrase was interpreted as "on partial engagement" as best understood by the examiner. Appropriate correction is required.

4. Claims 1, 12, and 20 are objected to because the following phrases should be amended to better distinguish between those elements associated with the first tubular member and those associated with the second tubular member:

a. Claim 1: The phrases "a member" and "the member" as recited on lines 4, 11, and 18 and the phrase "the bore" as recited on lines 2, 7, 9, and 14;

b. Claim 12: The phrases "a member" and "the member" as recited on lines 9, 16, 17 – 18, and 23 and the phrase "the bore" as recited on lines 7, 12, 14, and 19 ;

c. Claim 20: The phrases "a member" and "the member" as recited on lines 13, 22, 23, and 30 - 31 and the phrase "the bore" as recited on lines 10, 17, 19, and 26.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 12 – 14, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Wickersham (1,837,639).

Regarding claims 1, 12, and 13, Wickersham discloses a downhole connector comprising: a coupling (12) connecting a running tool (10) and a setting sleeve (11); a first tubular member (10) having a first bore (20) therethrough, a first screw thread (24) on pin (21), the screw thread is located around an outer surface of tubular member (10), one or more raised portions (surface on which projections 36 are located) arranged circumferentially on the outer surface, the raised portions defining a first face surrounding the first tubular member (10) and substantially perpendicular to the outer surface, the first face being directed toward the first screw thread (see threaded pin 21 in Fig. 3), the first face having a plurality of first projections (36), each first projection having a substantially first straight portion arranged parallel to the first bore of tubular member (10) and a first sloping portion, joining an apex of the first projection to a base of an adjacent projection; and a second tubular member (11) having a second bore (20) therethrough, a second screw thread (24) around an inner surface thereof, one or more raised portions (surface on which projections 39 are located) arranged circumferentially on an outer surface thereof, the raised portion defining a second face surrounding the second tubular member (11) and substantially perpendicular to the outer surface, the second face being at an end of the second

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tubular member (11), the second face having a plurality of second projections (39), each second projection having a substantially second straight portion arranged parallel to the second bore and a second sloping portion, joining an apex of the second projection to a base of an adjacent projection; wherein the first tubular member (10) slides within the second tubular member (11), the first and second screw threads (24) mate and on partial engagement of the screw threads, the first and second straight portions can meet to thereby transfer torque when the first member or the second member is rotated in the direction of the screw threads (Figs. 1 – 3; page 1, lines 69 – 80; page 2, lines 16 – 34, lines 56 – 68, and lines 105– 129).

Regarding claim 14, Wickersham further discloses first and second bores align to provide a continuous central bore (20) (Figs. 1 and 2).

Regarding claim 19, Wickersham further discloses a seal stem (box section 19) having a third cylindrical body with a third bore (20) therethrough, a third screw thread (17), and a polished distal end (downhole end of box section 19) (Fig. 2; page 1, lines 97 – 100).

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2, 15, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wickersham in view of Griffin et al. (2002/0167173). Wickersham discloses all of the limitations of the above claim(s) except for right hand screw threads. Griffin et al. teaches left-hand threads and right-hand threads are equivalent members and that the equivalent components

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of right-hand threads would merely be mirror images of those components used with left-hand threads (paragraph 0034). It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the structure as disclosed by Wickersham with the threads as taught by Griffin et al. to join two members having external threads that are wound in the same direction.

9. Claims 3 - 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wickersham in view of Rollins (2,885,225). Wickersham discloses all of the limitations of the above claim(s) except for square, double start screw threads having generous lead in edges. Rollins teaches a drill pipe coupling comprising square, double start screw threads (Figs. 1 - 3; column 2, lines 59 - 72) to form a connection having a quick and easy make-up, a long thread life, and good sealing on low torque. It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the structure as disclosed by Wickersham with the square, double start screw threads as taught by Rollins to form a connection having a quick and easy make-up, a long thread life, and good sealing on low torque.

10. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wickersham in view of Simmons et al. (5,503,187). Wickersham discloses all of the limitations of the above claim(s) except for at least one o-ring is arranged at either end of the screw thread circumferentially around the tubular member. Simmons et al. teaches o-rings (232, 234, 236) arranged at either end of a screw thread (Fig. 14; column 11, lines 5 - 20) to provide for fluid sealing between two elements connected by non fluid-sealing screw threads. It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have

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modified the structure as disclosed by Wickersham with the o-rings as taught by Simmons et al. to provide for fluid sealing between two elements connected by non fluid-sealing screw threads.

11. Claims 20 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wickersham.

Regarding claim 20, Wickersham discloses all of the limitations of the above claim(s) except for cementing the liner in place by introducing cement axially into the bore and allow the slurry to exit the liner and locate between the liner and the wellbore. Wickersham teaches a fluid passage (20) extending longitudinally through the coupling assembly (page 2, lines 2 – 4) to allow fluid to pass from the uphole end of the coupling assembly to the downhole end of the coupling assembly. It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the structure of Wickersham to include introducing a cement slurry into a fluid passage (20) and allow it to exit the downhole end of the fluid passage to cement a liner to a wellbore and secure the coupling within the wellbore.

Regarding claim 25, Wickersham discloses all of the limitations of the above claim(s) except for the step of rotating and reciprocating the system on the drill string during cementing. It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the structure as disclosed by Wickersham to include rotating and reciprocating the system on the drill string during cementing to ensure the proper positioning of the system within the wellbore.

***Allowable Subject Matter***

12. Claims 7 – 9, 11, 16 – 18, 22 – 24, and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the



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limitations of the base claim and any intervening claims. The closest prior art fails to teach or suggest the following components of a downhole coupling:

- a. Arranging shearable means, i.e. shear pins, through apertures on the second tubular and resting in pockets in the outer surface of the first tubular;
- b. Positioning one or more radial outlets around the circumference of the first and second tubular members so that when the radial outlets of the first and second tubulars are aligned fluid can pass radially from the system;
- c. Removing an assembly from the wellbore through the liner when the system is connected to the liner.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEAN D. ANDRISH whose telephone number is (571)270-3098. The examiner can normally be reached on Mon - Fri, 7:30am - 5:00pm, Alternate Fri off, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on (571) 272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William Neuder/  
Primary Examiner  
Art Unit 3672

SDA  
9/18/2008